

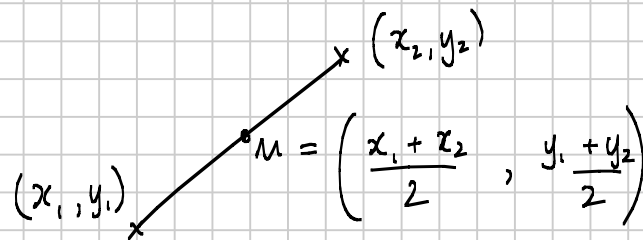
C2 chapter 4 introduction

Note Title

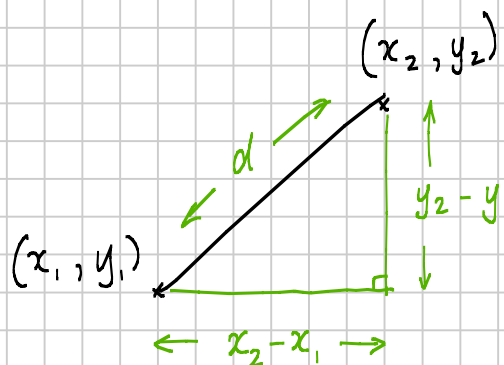
10/02/2011

- ⑩ WALT:
- ① find midpoint of line segment
 - ② distance between 2 points
 - ③ use $(x-a)^2 + (y-b)^2 = r^2$ to give circle centre (a,b) radius r .
 - ④ revise circle theorems from GCSE.

- ① Mid point of line joining (x_1, y_1) and (x_2, y_2)
it's an 'average'

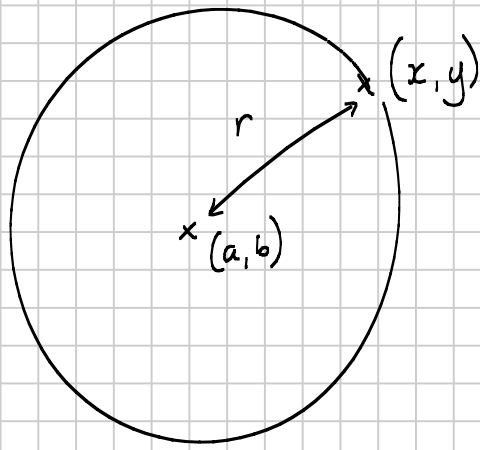


- ② Distance between (x_1, y_1) and (x_2, y_2) - use Pythagoras'



$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

- ③ The definition of a circle is that it is the locus of points ^{set of points.} which equidistant from a single point called the centre
Call the centre (a, b)



call distance r for 'radius'
instead of d .

use ② above to find formula
for r .

$$r = \sqrt{(x-a)^2 + (y-b)^2}$$

square both sides

$$(x-a)^2 + (y-b)^2 = r^2$$

Equation of circle centre (a, b) radius r .